

Macrolides

Key Questions and Inclusion Criteria

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1. For adults and children with community-acquired pneumonia, acute bacterial sinusitis, acute exacerbations of chronic bronchitis, otitis media, pharyngitis, and Mycobacterium Avium Complex, do macrolide antibiotics differ in efficacy?
2. For adults and children with community-acquired pneumonia, acute bacterial sinusitis, acute exacerbations of chronic bronchitis, otitis media, pharyngitis, and Mycobacterium Avium Complex, do macrolide antibiotics differ in safety or adverse events?
3. Are there subgroups of patients based on demographics (age, racial groups, gender), other medications, or co-morbidities, or in pregnancy for which one macrolide is more efficacious or associated with fewer adverse events?

Inclusion Criteria

Populations

Adult patients and children (under age 18) in outpatient settings with the following diagnosis:

- Community-acquired pneumonia
- Acute bacterial sinusitis
- Acute exacerbations of chronic bronchitis
- Otitis Media
- Pharyngitis
- Mycobacterium Avium Complex

Interventions

Generic Name	Trade Name	Forms
Azithromycin	Zithromax, ZMAX	Oral tablets and suspension
Erythromycin	Ery-tab	Oral tablets and suspension
Clarithromycin	Biaxin, Biaxin XL	Oral tablets and suspension

Efficacy Outcomes

Population	Outcomes
Community-acquired pneumonia Acute bacterial sinusitis Acute exacerbations of chronic bronchitis Otitis Media Pharyngitis Mycobacterium Avium Complex	1. Clinical cure rate (to be further specified) 2. Bacteriological cure rate 3. Percent switch to different antibiotic 4. Hospitalization rates 5. Mortality

Safety Outcomes

- Overall adverse effect reports
- Withdrawals due to adverse effects
- Serious adverse events reported
- Specific adverse events (nausea, vomiting, diarrhea, prolongation of QT interval, torsades de pointes, ventricular arrhythmias)

Study Designs

1. For efficacy, controlled clinical trials and good-quality systematic reviews
2. For safety, controlled clinical trials, good-quality systematic reviews and observational studies.